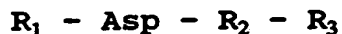


ABSTRACT OF THE DISCLOSURE

There is disclosed an isolated polypeptide and derivatives thereof having protease biological activity for human precursor IL-1 $\beta$  and for a substrate comprising:



wherein  $R_1$  and  $R_3$  are independently any D or L isomer amino acid,  $R_2$  is Ala or Gly, and wherein the specific protease cleavage site is between Asp and  $R_2$ . Inhibitor compounds, compositions and methods for inhibiting Interleukin 1 $\beta$  protease activity are also disclosed. The inhibitor compounds comprise an amino acid sequence of from 1 to about 5 amino acids having an N-terminal blocking group and a C-terminal Asp residue connected to an electronegative leaving group, wherein the amino acid sequence corresponds to the sequence Ala-Tyr-Val-His-Asp.